



Docket No. 216644US0

IN THE UNITED STATES PATENT & TRADEMARK OFFICE

In Re Application of :  
Masayasu OGUSHI, et al. : Group Art Unit: 1772  
Serial No.: 09/995,599 :  
Filed: November 29, 2001 : Examiner: W. AUGHENBAGH  
For: ENDOTRACHEAL TUBE

DECLARATION UNDER 37 C.F.R. 1.132

COMMISSIONER FOR PATENTS  
ALEXANDRIA, VIRGINIA 22313-1450

Sir:

I, Yukihiro FUJIEDA, residing at Kurashiki-shi, Okayama-ken, Japan, hereby declares and states that:

1. I am one of the co-inventors of U.S. Application Serial No. 09/995,599 filed on November 29, 2001. I am thoroughly familiar with the contents of said Application, its prosecution before the United States Patent and Trademark Office and the references cited therein.
2. I am a graduate of Kyushu University, Department of Engineering, and received my Master's degree in the year 1989.
3. I have been employed by Kuraray Co., Ltd. in the year 1989 as a researcher in the field of medical equipment.
4. The following experiments were conducted by myself or under my direct supervision and control in order to prove that TAFMER P0480 disclosed in US 6,184,291 B1 (Ahmed et al.) contains about 80% by mole of ethylene monomer, and is not a polypropylene consisting essentially of propylene monomer.

## **EXPERIMENTAL:**

### **Experiment**

The NMR of a thermoelastic homogeneously branched linear ethylene/propylene copolymer commercially available from Mitsui Chemical Company under the trade name of TAFMER P0480 disclosed by Ahmed et al. was examined under the following conditions.

#### **(1) Sample:**

Ethylene/propylene copolymer commercially available from Mitsui Chemical Company under the trade name of TAFMER P0480

#### **(2) Apparatus:**

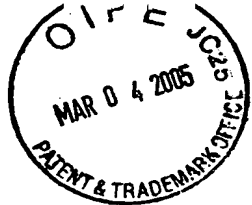
Superconductive nuclear magnetic resonance apparatus commercially available from JEOL LTD. under the trade name of Lambda 500

#### **(3) Conditions for determination:**

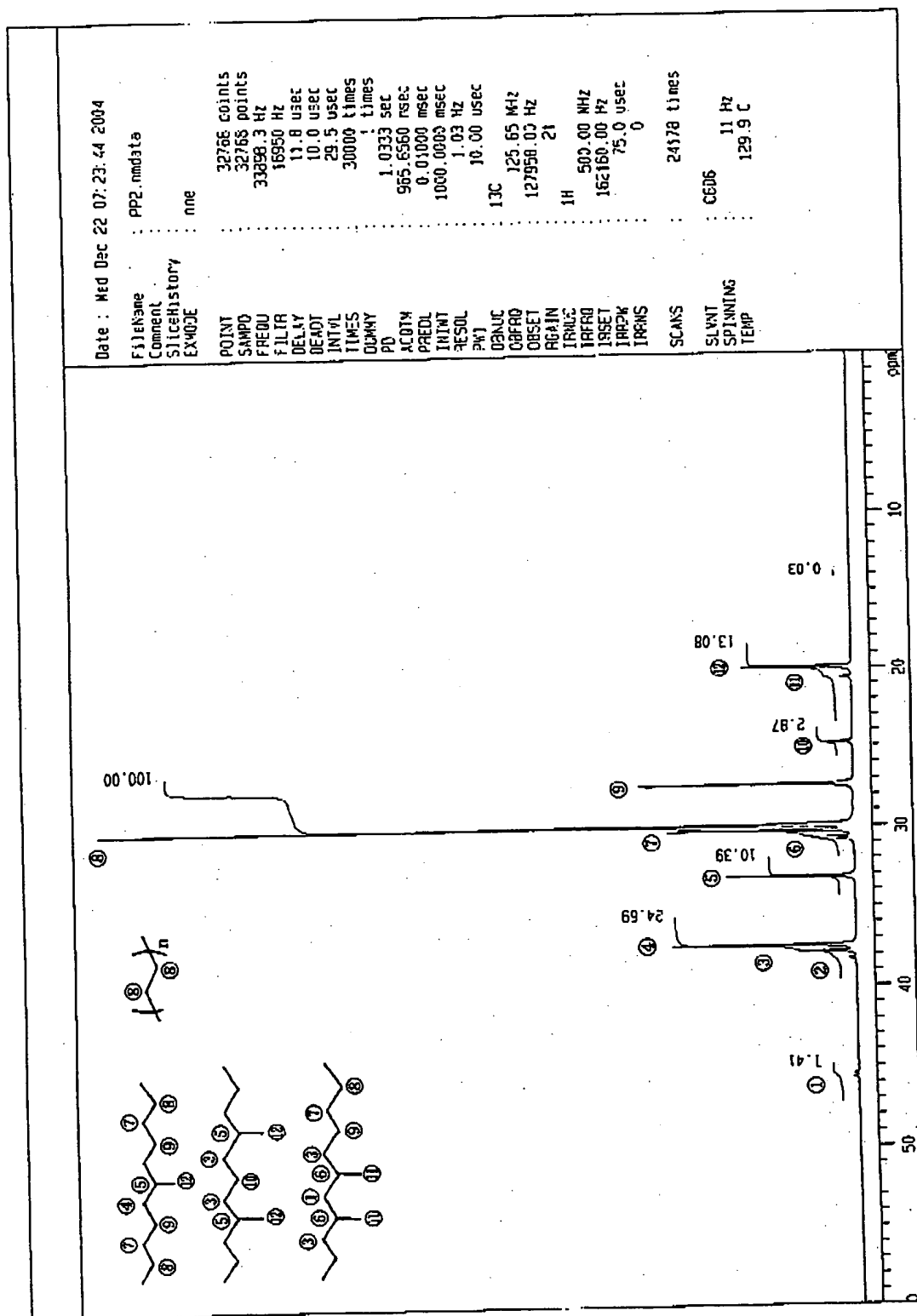
- Resonance frequency:  $^{13}\text{C}$ , 125 MHz
- Solvent: ODCB+ODCB- $\text{d}_4$
- Concentration: 15% by weight /vol (CrAcAc being added)
- Temperature at determination: 130°C
- Mode: NNE
- Integrating number: 25000S

## **RESULTS:**

The chart of NMR is as follows:



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- (1) The total concentration ascribed to propylene (PC) is the sum of the concentrations of ⑪ and ⑫, i.e. 13.08.
- (2) The total concentration ascribed to ethylene (EC) is obtained by the following equation:

$$\begin{aligned} [\text{EC}] &= \{(\text{① to ⑩}) - 2 \times (\text{⑪} + \text{⑫})\} \div 2 \\ &= \{(1.41 + 24.69 + 10.39 + 100 + 2.87) - 2 \times 13.08\} \div 2 \\ &= 56.615. \end{aligned}$$

- (3) The ratio of propylene content to ethylene content is obtained by the following equation:

$$\begin{aligned} &[\text{Ratio of propylene content to ethylene content}] \\ &= [\text{PC}] / [\text{EC}] \\ &= 13.8 / 56.615 \\ &= 18.8 / 81.2 \text{ (molar ratio)} \end{aligned}$$

#### **DISCUSSION:**

As is clear from the above results, it has been proved that TAFMER P0480 disclosed in US 6,184,291 B1 (Ahmed et al.) contains about 80% by molar of ethylene monomer, and is not a polypropylene consisting essentially of propylene monomer.

5. The undersigned petitioner declares further that all statements made herein of his own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of this application or any patent issuing thereon.

6. Further declarant saith not.

*Yukihiro Fujieda*

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Yukihiro FUJIEDA

*Feb. 9. 2005*

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Date